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Cache

REPORT FOR FOREST ATLAS

CACHE NATIONAL FOREST, UTAH AND IDAHO.

PHYSICAL FEATURES

The general character of the country included in the Cache National Forest is mountainous, consisting of a spur of the Wasatch Range extending in a north and south direction, cut up by numerous valleys extending in a general east and west direction, and draining into Cache Valley and Gentile Valley on the west and into Bear Lake Valley on the east. The elevation of Cache Valley is approximately 4500 feet, of Gentile Valley 5000, and of Bear Lake Valley 6000 feet. The altitude of the area included in this Forest ranges from the elevation of the valleys to high peaks over 9000 feet in elevation. The larger peaks are: Logan Peak southeast of the City of Logan, approximately 9000 feet; Paris Peak west of Paris in Idaho, 9500 feet; Sherman Peak near the north end of the Forest, 9800 feet. There are numerous other small peaks having approximately an elevation of 9000 feet.

The whole Forest is drained by Bear River which flows in a northwest direction through Bear Lake Valley on the east of this Forest and in a southwest direction through Gentile and Cache Valleys on the west. The streams as a rule are small and of no great length, but are very important as the agricultural valleys mentioned depen d upon them largely for water supply both for culinary and irrigation purposes. The largest stream flowing from this Forest is Logan River which flows about 250 second feet where it leaves the Forest. It furnishes power to two power plants, and the distance from the head to the Forest boundary is approximately 25 miles. Other important streams are Cub River which flows through the town of Franklin, Idaho; Mink Creek which flows through the town of Mink Creek, Idaho; Big Creek flowing through the town of St. Charles, Idaho; Eightmile draining quite a long valley in the northern extremity of this Forest and flowing in a northerly direction into Bear River not far from Soda Springs. If the size of these streams is important, I will refer you to my report on stream flow for this Forest made in September 1908. Practically all of the agricultural settlements covering the three valleys surrounding this Forest are dependent upon the small streams of this Forest for their water supply.

NATURAL RESOURCES AND INDUSTRIES

Waterflow

The principal reason s for conserving and regulating the flow of streams from this Forest are intimated in the remarks on drainage above. No reclamation work has been taken up by the government in this vicinity or that is dependent upon the flow of water from this Forest. Several powerplants are in operation using water drained from this Forest. The large powerplant at Grace, Idaho, belonging to the Telluride Power Company is located on Bear River which is partially supplied with water from this Forest. This plant develops approximately 18000 horse power. Four other plants are in operation; but one plant is located on the Forest. It is on Logan River and belongs to the City of Logan, develops approximately 150 horse power. The Telluride Power Company has a plant at the mouth of Logan Canyon just below the Forest boundary. The dam and part of the flume are located on the Forest. The power developed by this plant is about 1500 horse power. A power plant on Cub River belonging to the High Creek Power Company of Preston, Idaho, develops about 200 horse power. The Paris Electric Light Plant located on Paris Creek below the Forest boundary is of small size and develops approximately 100 horse power. The development of water power in water from this Forest and in Bear River is probably to be developed in the future much more than it has been in the past. The power is abundant and should be developed as rapidly as the increased demand for it warrants the investment of capital. There are no navigable streams dependent upon this Forest.

FOREST COVER

For a full discussion of the Forest Cover of this Forest and a type map describing it I wish to refer you to the working plan report made by George Philip Bard, Forest Assistant, during the past summer and submitted in November 1908.

Originally, no doubt, these mountains were well stocked with a good stand of red fir, Engelmann spruce, balsam, and lodgepole pine. During the past 40 years, however, fires and destructive lumbering have reduced the original stand to small isolated patches that have escaped the fires, and on account of inaccessibility the axe of the lumberman.

The principal purpose for which this Forest should be fully stocked with timber and made to produce as much as possible is the supplying of timber for building purposes to be used in the valleys adjacent to this Forest. The communities in the valleys have been built practically from timber secured in these mountains. For the future development a constant supply of timber at a reasonable price is necessary, and for this reason as much good saw timber as possible should be grown. The stream flow which is very important to the industries of the valleys depends also largely upon the protection afforded by a plentiful stand of timber on the watersheds.

Reforestation is being accomplished at present in many places by protection against Forest fires. Some places however no reproduction is appearing due to lack of seed trees of valuable species and to the presence in impenetrable masses of a species of ceanothus, known locally as larb or chaparral. In these places afforestation should be practiced and the north slopes which are most promising for the successful growth of trees should be planted with Douglas Fir (Red Fir) and Engelmann spruce in the higher altitudes. The question of afforestation and planting is as yet without the necessary foundation of careful experiments. Such experiments should be made as soon as means are available.

Approximately 60 percent of the Forest area has no tree cover but is covered with grass and herbaceous plants. For this reason the grazing industry is one of the most important with which this Forest has to do. Many areas, however, covered with chaparral (larb) are of no value whatever either for grazing purposes or timber supply although this brush is of considerable value in the watershed protection.

Sources of Timber Supplies

The principal silvicultural types found on this Forest are most conveniently named and described by the principal commercial species found in each type. These types are given as follows in order of commercial importance: Doublas Fir type, Engelmann spruce type, Lodgepole pine type, and Quaking aspen type.

Practically all the timber used in the valleys surrounding this Forest during the past for the building of farm houses, barns, and for building the numerous small towns has been cut from the Douglas Fir type that originally covered the north slopes up to an elevation of about 7500 feet. Practically all the easily accessible Douglas Fir has been lumbered that was not burned before it was reached by the lumbermen. At present there is about 17 million feet B. M. of Douglas Fir that can be cut from this Forest without injury to the future Forest crop. The reproduction of Douglas Fir is as a rule good on the old cuttings.

The Engelmann spruce type occupies the higher north or gentle slopes and is one of the principal available sources of the present timber supply. This type is made up partly of Alpine Fir. The amount of each of these species that is capable of being cut without injury to the future crop is approximately 22 million feet B. M. of Engelmann spruce and 7 1/2 million feet B. M. of Alpine Fir. Reproduction of Alpine Fir predominates in this type and is apparently crowding out the Engelmann spruce which is a superior commercial species.

The Lodgepole pine type occurs on the higher elevations above 7500 feet on the east side of the Forest. There is about 2 1/2 million feet of this species that can be cut. As a rule the reproduction of this species is splendid. This type is often composed of pure stands of lodgepole pine.

The Quaking Aspen type is found on the higher elevations above 7000 feet on the northerly slopes. It is made up almost entirely of Quaking Aspen which comes in good after a fire. This species is considered valuable chiefly as firewood, fence posts, and as a watershed protection.

Besides the quantities of living saw timber above mentioned there is about 2 million feet B. M. of dead saw timber and 85,000 cords of dead firewood that should be removed from this Forest.

The market for the timber on this Forest is found in the valleys immediately surrounding them. Practically no timber has been shipped from this region during the past and there are no indications that it will be shipped

in the future as it is practically all needed for the future development of the valleys immediately surrounding this Forest.

The principal towns located in these valleys are the following: Logan, Utah; Smithfield, Utah; Richmond, Utah; Franklin, Idaho; Preston, Idaho; Mink Creek, Idaho; Soda Springs, Idaho; Montpelier, Idaho; St.Charles, Idaho; Fish Haven, Idaho; Laketown, Utah; Bloomington, Idaho.

The only railroad in this region is the Oregon Short Line which has a branch in Cache Valley and a branch runs from McCammon through Soda Springs and Montpelier, which towns are near the north end of this Forest, to the Union Pacific in Wyoming.

The probable future demand for timber will exceed the demand during the past, but can be supplied to these valleys by this Forest for an indefinite period in the future if the larger towns on the railroad still continue to purchase considerable lumber shipped in from Oregon and other states as is being done at present. The small waste in lumberin as compared with that in the past and more careful protection against fire will do a great deal to preserve the supply of lumber for this region. During the past a very large percent of the supply of timber on this Forest has been consumed by fire. This has been due to neglect and lack of attention by the settlers in the region. Formerly no one ever considered it his business to go up and stop a fire, and no pains or care was exercised to prevent one starting. No destructive fires have occurred on this Forest since it has been placed under Forest Administration, and there is no liklihood of destructive fires occurring in the future as this is not a difficult Forest to patrol or protect against fire, and the people living adjacent to the Forest and using the Forest have become educated to the great loss to them through this serious waste.

Agriculture

Agriculture is the leading industry. Wheat, oats, barley, hay, sugar beets, and potatoes are raised. These are the principal products of the farm. Grain is raised in large quantities on both dry and irrigated land. Two sugar factories are in operation which supply the farmer with a good market for beets. The climate varies according to location. The valleys lying to the west of the range are less liable to frost than those bordering on the east, and some seasons the crops are seriously affected by frost in the Bear Lake country which is about 1500 feet higher than Cache Valley. Large quantities of grain, potatoes, and baled hay are shipped to outside markets, also the bulk of sugar manufactured at the factories. Two condensed milk factories and the creameries ship to outside markets large quantities of their products. This industry affords a good local market for all surplus milk produced by the farmers.

As the country develops and the population increases the large farms will be divided and a more intensive system of tilling the soil will be introduced which will greatly add to the output of the soil. Raising beets for the factories and vegetables for shipping will increase. These industries require irrigation and consequently depend upon the mountain streams. The watersheds now under government protection will increase the waterflow and assist in bringing about these changed conditions.

Grazing

From the beginning of settlement stock raising has been one of the industries; and before the valleys surrounding this Forest were settled they were used for summer range, and the stock was driven to other localities for the winter. The early settlers made stock raising the leading feature, built stockades, cut and stacked wild hay which grew in abundance along the river bottoms. They generally herded their stock in the valleys and along the foot hills during the day, and gathered them at night and stood guard over them to protect them from the Indians. Today a very small percent of the people make stock raising their exclusive business, although the majority of farmers raise stock. These are mostly milch cows and horses which they usually pasture in summer and feed at home in winter. The mountain range is suited only to summer grazing due to elevation and depth of snowfall in winter. Range conditions improve from year to year under Forest management. This is encouraging to the stockmen and a satisfaction to the officers. The majority of the stock owners are bona fide settlers with their homes and property locally situated. The output of stock is sold in eastern markets, principally Omaha. The stock are shipped by railroad to the stock yards.

Before the range was placed under government supervision transient stock, more especially sheep, filled the mountains and canyons coming from all directions. They simply took possession of the range which the resident farmers largely depended upon for their summer grazing, compelling the farmers to seek other pastures or feed their stock at home. This was not all, sheep men were accustomed to bed upon streams poluting the water making it unfit for culinary purposes, and giving to the whole range the odor of sheep.

Today the local stock owner is protected against these free for all invasions, and his stock usually stay on the range during the grazing season if they are not drived off to market. The grade of stock improves from year to year with the increase of feed and better management. The public in general is benefited by the protection of streams and springs which has purified the water.

Mining

The mining industry is very limited, and while there has been considerable prospecting done no ore bodies or veins of any commercial value have been found. The mining industry would have to depend altogether upon the timber from the Forest.

Leading Industries

The leading industry of the valleys surrounding this Forest is agriculture. Of this industry the branch of stock raising is one of the most important. But few stock owners depend entirely upon stock raising and make it their chief industry, but it is considered a part of agriculture. The business of the small towns surrounding this Forest is dependent primarily upon agriculture. About eight banks are doing business in these towns. Cache Valley has several factories that depend entirely upon agriculture, namely, two sugar factories, two condensed milk factories, and quite a number of creameries have also been established in this valley. There are three knitting factories located in the town of Logan which give considerable employment, and are not dependent upon agriculture. The Telluride Power Company has a power plant on Logan River which is below the boundary of this Forest, and one at Grace, Idaho, on Bear River and six miles west of the west boundary of this Forest.

Practically all of the industries above are dependent upon the Forest for their supply of timber and firewood which are indispensable; for good summer range so necessary to the most profitable raising of beef, mutton, and wool; and for water supply for irrigation purposes. While a large part of the land in the valleys is not irrigated and is not dependent upon the water supply from this Forest, still the irrigated lands are scattered throughout the valleys and many farmers have part of their farms irrigated and the rest managed on the dry land plan. The sugar beet industry is practically dependent upon irrigated land.

SETTLERS

In 1859 the first settlers came into Cache Valley to build permanent homes. The first winter they built a fort on the west side of the valley in what is now called Wellsville, being necessary to fortify themselves against the invasion of Indians. They were,young, full of hope and determination, a class used to frontier life and roughing it. They were all poor being limited to a team of horses or oxen and a few milch cows. They were attracted to Cache Valley by the quality of soil, the beautiful streams, and grazing possibilities. Through their industry and perseverance houses were built, and land was fenced, tilled and made productive. This attracted other home seekers and new settlements sprange up from year to year composed largely of the same class of people. As time elapsed and the Indians were subdued, small vilages and ranches were in evidence wherever favorable conditions prevailed, until the whole circumference of the Forest is now more or less settled although very scattering in some parts due to surrounding conditions.

A very limited number have tried farming within the Forest, and there is not likely to be any future increase as there is little or no land suitable for agricultural purposes.

Another class of settlers were attracted as the country grew and the people prospered--the speculative or business class seeking investment. They could see the opportunity for opening mercantile establishments, banks, water power facilities, buying and shipping the products of the farm, building factories, flour mills and other enterprises, until today the country is made up of all classes.

Wheather the Forest will attract other classes I am unable to say, but all that are now here enjoy the benefits of Forest management, and the majority are well satisfied with the changed condition brought about through protection.

FUTURE DEVELOPMENT OF THE FOREST

After stating the industries as I have it can be easily seen in what manner development of these industries can be increased by proper management of this Forest. To produce the best results Forest management must produce a large supply of timber, fence posts, and firewood for developing the ranches. Roads should be built to make this timber accessible. Watersheds must be protected to supply the most constant flow in the streams upon which the irrigated lands and power plants depend. The range must be handled in the best possible manner so as to give the greatest amount of good to the greatest number of local users. This Forest must therefore be looked upon as being created and managed to accomplish these three purposes, timber supply, watershed protection, and forage supply.

MEANING AND DERIVATION OF NAME OF THE FOREST

The name Cache Valley first appeared in print in Fremont's Official Report of his explorations published in 1843. In 1847 the Mormon Pioneers met a Mr. Harris east of the Rocky Mountains. This man was a trapper and guide of long experience. He gave them the most favorable account of a small region under the Bear River Mountains called Cache Valley. He stated the place derived its name from the fact that trappers and traders had been in the habit of caching their robes, furs, and supplies there to hide them from the Indians. This information is contained in a clipping from the Utah Gazeteer relating an interview by Wm. Clayton, Secretary to Brigham Young, with a trapper and guide by the name of Harris.

REMARKS

The most important historical incident connected with the settlement of Cache Valley after the settlers first arrived in 1859 was the battle with the Indians on Battle Creek a small tributary of Bear River in the north end of Cache Valley on January 29, 1863. Before this date the Indians had continually harassed the settlers by stealing their cattle and making invasions upon their small farms. During the winter of 1862 and 1863, about 300 warriors with their families were camped and fortified on Battle Creek very near its mouth. Colonel Patrick O'Connell, afterwards general, who was then in command of Fort Douglas, Salt Lake City, with about 300 cavalry and infantry of the California volunteers attacked the Indians and practically annihilated them. The Indians were of the tribes of the Bannocks and Shoshones under Chiefs Bear Hunter, Pocatello, and San Pitch. Chief Bear Hunter was killed, but Pocatello and San Pitch escaped. Bancrofts history gives the number of soldiers killed outright as 14. There were a large number of wounded who afterwards died. About 40 are said to have died as a result of this battle. A monument was erected to their memory at Camp Douglas.

As a result of this battle the reign of terror exercised by the Indians over the settlers was broken and very little trouble was experienced by the settlers with the Indians thereafter.

Several large springs are found on this Forest which are somewhat of natural wonders in the amount of water that issues from one place. The formation being limestone underground channels must exist which are fed by sink holes in the higher country. Ricks Spring in Logan Canyon is the most accessible of these springs, and is located about 18 miles from the city of Logan. The flow of this stream in summer is about 15 second feet. Big Spring in Cub River issues in two openings about ten feet apart and flows about 25 second feet. The spring at the head of Swan Creek in Idaho near the Utah line just below the east boundary of the Forest flows a stream of over 100 second feet.

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